REMARKS

Claims 1, 4-7, 9, 11, 14-27 and 30-31 were rejected under 35 U.S.C. 102(e) as anticipated by U.S.P.N. 6,130,890 to Leinwand et al (hereinafter "Leinwand"). Claims 2 and 3 were rejected as obvious over Leinwand in view of U.S.P.N. 6,324,585 to Zhang et al (hereinafter "Zhang"). Claims 8, 12, 13, 28, and 29 were rejected as obvious over Leinwand in view of U.S.P.N. 5,231,631 to Buhrke et al (hereinafter "Buhrke"). Claim 10 was rejected as obvious over Leinwand in view of U.S.P.N. 6,609,939 to Fung (hereinafter "Fung").

Claims 1-23 have been canceled, with claims 24-56 currently pending. Claims 24 and 32 have been Currently Amended, and claims 33-56 have been newly added by amendment. No new matter has been added. In view of the amendments and Remarks, the Applicant respectfully requests allowance of the pending claims.

The Leinwand Reference

Since the previously pending claims were rejected as anticipated by or obvious in view of Leinwand, a brief discussion of Leinwand is instructive.

Leinwand discloses a system for routing a packet from a source autonomous system to a destination autonomous system, with the source autonomous system associated with one geographic area and the destination autonomous system associated with another geographic area. Each autonomous system (hereinafter "AS") is associated with a collection of IP addresses. Leinwand at Col. 2, lines 3-11; and Col. 2, lines 35-49. An AS can be associated with millions of IP addresses. Id. Leinwand only discloses one method for identifying a geographic area; namely, Leinwand discloses using a database, such as the ARIN database, to associate the geographic area of each AS with a country. Leinwand at Figs. 4, 7, 8, 10A, 10B; Col. 10, line 32 to Col. 11, line 13; and Col. 13, line 62 to Col. 14, line 15. The invention of Leinwand uses the country of each AS to choose how to route network traffic between ASs. Leinwand at Col. 10, line 32 to Col. 11, line 13; and Col. 13, line 62 to Col. 14, line 15. Leinwand does not disclose any method for determining a geographic location with more than country-level accuracy.

Rejections Under 35 U.S.C. §102(e)

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983). For a process, anticipation requires identity of the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc., 45 F.3d 1550 (Fed. Cir. 1995). Those elements must either be inherent or disclosed expressly. Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560 (Fed. Cir. 1988). Those elements must also be arranged as in the claim. See Richardson v. Suzuki Motor Co., 868 F.2d 1226 (Fed. Cir. 1989). For anticipation, there must be no difference between the claimed invention and the reference disclosure as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Res. Found. v. Genentech, Inc., 927 F.2d 1565 (Fed. Cir. 1991).

Independent Claim 24

Claim 24 has been Currently Amended to recite that the source, the destination, and the one or more intermediate hosts are each located in a different area of the same country. The amendment has support in the Application at page 14, lines 10-12; page 14, line 19 to page 16, line 42; and page 18, lines 3-11. No new matter has been added.

As discussed above, Leinwand discloses a method for routing network traffic between Autonomous Systems based on the country associated with each Autonomous System. In contrast, claim 24 determines a geographic location of the source, the destination, and of one or more intermediate hosts, wherein the source, the destination, and the one or more intermediate hosts are each located in a different area of the same country. Accordingly, claim 24 is allowable over Leinwand.

Independent Claim 32

Claim 32 has been Currently Amended in a manner similar to claim 24. No new matter has been added. Claim 32 is allowable for at least the reason that Leinwand does not teach or disclose directing the network traffic by the routing device to a desired destination based on the

geographic location of the source or destination and the geographic location of the one or more intermediate hosts, and wherein the source, the destination, and the one or more intermediate hosts are each located in a different area of the same country, and wherein an area is at least one of a city, county, state, zip code, area code, or region, as recited in claim 32.

Independent Claim 33

Claim 33 has been added by amendment, and generally recites subject matter similar to claims 24 and 32. No new matter has been added. Claim 33 is allowable for at least the reason that Leinwand does not teach or disclose selecting a route from one of the first route or the second route using the geographic location of the destination, the geographic location of the router, the geographic location of the first intermediate routing device, and the geographic location of the second intermediate routing device, wherein the destination, the router, and the first and second intermediate routing devices are each located in a different area of the same country, and wherein an area is at least one of a city, county, state, zip code, area code, or region, as recited in claim 33.

Dependent Claim 44

Claim 44 generally recites the subject matter of canceled claim 11. No new matter has been added.

To support a rejection of canceled claim 11, the Office Action cites to Leinwand at Col. 11, lines 5-24, and asserts that it discloses "choosing a route having the fastest speed for the data packet." Claim 44 recites selecting a destination based on a connection speed associated with a source of the network traffic. The cited language from Leinwand makes no reference to the connection speed of a source of network traffic as recited in claim 44. As understood by one of skill in the art, choosing a route having the "fastest speed" does not indicate the connection speed of the source.

Further, neither the cited language nor Leinwand in general discloses selecting a destination as recited in claim 44. Choosing a route for network traffic is simply not the same as selecting a destination for network traffic. Thus, the Applicant respectfully asserts that claim 44 is allowable over Leinwand.

<u>Dependent Claims 49-51</u>

Dependent claims 49-51 generally recite the subject matter of canceled claims 18-20. Claims 49-51 present no new matter.

To support a rejection of claim 18, now canceled, the Office Action states:

> Regarding claim 18, Leinwand teaches the method as set forth in claim 15, wherein analyzing comprises modeling behavior of the network (col. 7, lines 5-25, Leinwand discloses routers choosing routes for the packets).

Leinwand at Col. 7, lines 5-25 discloses:

> When the source 11 transmits a message, such as a data packet, to the destination 34, the router 14 in the AS 12 makes a decision as to which route to take. In particular, the router 14 determines which of the ASs 20, 22, or 28 the data packet will travel to next. As a result, the router 14 decides the link 15, 16, or 17 on which to send the data packet. The router 14 uses reachability information in order to determine the route. The AS 12 receives reachability information via BGP4 about the AS 32 from the AS 20, the is AS 22, and the AS 28. Based on this information, the router 14 in the AS 12 make a decision as to which of the ASs 20, 22, and 28 directly linked to the AS 12 the data packet should travel to. This decision is called choosing the "next hop" because a data packet is typically referred to as "hopping" from one router to another. After the next hop is selected, the data packet travels to the next AS 20, 22, or 28. The data packet then travels through routers (not shown) in the next AS 20, 22, or 28. One such router, at a border of the next AS 20, 22, or 28 determines the subsequent AS which the data packet will hop to next. Thus, these routers (not shown) will select one of the links 21, 24, and 29.

The Applicant agrees that the above-cited language discloses routers choosing routes for packets; in fact, "routers choosing routes for packets" is simply a statement of how conventional routers operate, as known to one of skill in the art. However, the Applicant strenuously disagrees with the rejection above because "choosing routes for packets" clearly fails to teach or disclose modeling network behavior as recited in claim 49. As understood by one of skill in the art, a "model" describes the operation of a system. The cited language from Leinwand <u>clearly</u> has nothing to do with modeling the behavior of a network. Further, conventional routers, as

known to one of skill in the art, do not model network traffic as recited in claim 49. Thus, the Applicant respectfully asserts that claim 49 is allowable over Leinwand.

If the Examiner continues to reject the subject matter of claim 49 using Leinwand, then the Applicant again[1] respectfully requests that the Examiner clarify how choosing routes for packets teaches modeling network behavior as recited in claim 49.

To support a rejection of canceled claim 19, which is similar to pending claim 50, the Office Action relies on Leinwand at Col. 7, lines 5-23, which is provided above. In view of the analysis above, the Applicant strongly asserts that claim 50 is allowable for at least the reason that Leinwand clearly does not teach or disclose the method of claim 49 wherein modeling comprises approximating the behavior at routing devices in the network, as recited in claim 50.

If the Examiner continues to reject the subject matter of claim 50 using Leinwand, then the Applicant again[2] respectfully requests that the Examiner clarify how the cited language from Leinwand discloses approximating the behavior at nodes as recited in claim 50.

To support a rejection of claim 20, now canceled, which is similar to pending claim 51, the Office Action asserts that:

> Regarding claim 20, Leinwand teaches the method as set forth in claim 18, wherein modeling comprises simplifying the map of the network by combining nodes in traffic routes (col. 1, lines 39-50, Leinwand discloses calls routed to a geographic region; col. 2, lines 21-32, Leinwand discloses router acting as a node for data to access multiple routes).

The Applicant strongly disagrees with the reasoning above. Assuming, arguendo, that Leinwand discloses "calls routed to a geographic region" and a router "acting as a node for data to access multiple routes", claim 51 is still allowable over Leinwand. First, "calls routed to a geographic region" simply is not relevant to modeling or modeling by simplifying the map of the network traffic by combining nodes as recited in claim 51.

Second, a router "acting as a node for data to access multiple routes" plainly does not disclose modeling by simplifying the map of the network traffic by combining nodes as recited in claim 51. The Applicant would like to emphasize that "accessing" multiple routes from a

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[1] See pages 13-14 of the Response to Office Action mailed December 15, 2005.
[2] See page 14 of the Response to Office Action mailed December 15, 2005.

single node is not the same as modeling a network by combining nodes in traffic routes. Thus, the Applicant respectfully asserts that claim 51 is allowable over Leinwand.

If the Examiner continues to reject the subject matter of claim 51 using Leinwand, then the Applicant again[3] respectfully requests that the Examiner clarify how the cited language from Leinwand discloses modeling comprising simplifying the map of the network as recited in claim 50.

Rejections Under 35 U.S.C. §103(a)

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991).

Dependent Claims 38, 45, and 46

Dependent claims 38, 45, and 46 generally recite the subject matter of canceled claims 8, 12, and 13, respectively. Claims 38, 45, and 46 present no new matter.

To support a rejection of claims 8, 12, and 13, which are now canceled, the Office Action states:

> Leinwand fails to teach the limitation further including the selection of a route based on bandwidth.
> However, Buhrke teaches a method and apparatus for controlling overflow traffic in a data network (see abstract). Buhrke teaches the use of selecting a route based on having the most available bandwidth, selecting the amount of bandwidth available at the destination, and selecting the destination based on the amount of bandwidth available at it (col. 1, lines 65-67; col. 2, lines 1-66).

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[3] See pages 14-15 of the Response to Office Action mailed December 15, 2005.

The Applicant strongly disagrees with the above-characterization of Buhrke. Buhrke at

Col. 1, line 65 to Col. 2, line 66 discloses:

> The above problem is solved and an advance is made in the art in
> accordance with the principles of this invention wherein some or
> all of the bandwidth at an ingress facility and at an egress facility
> to a data network is allocated for the transmission of a data
> message before the message is transmitted. The ingress facility is
> connected to a terminal transmitting the message and the egress
> facility is connected to a terminal receiving the message. In an
> illustrative embodiment, before sending a data message or series of
> messages between an ingress controller and an egress controller,
> the amount of bandwidth required to transmit the data message
> efficiently is determined; a determination is then made of the
> availability of that amount of bandwidth in the ingress controller
> and the egress controller, and such bandwidth is allocated if
> available. The ingress and egress controllers are terminal adapters
> connected to the ingress and egress facilities, respectively. The act
> of sending a bandwidth allocation request message to the egress or
> destination terminal adapter only takes place after the bandwidth
> has been allocated on the outgoing port of the ingress or source
> terminal adapter. If such bandwidth is available at the source and
> destination terminal adapters, this bandwidth is allocated in the
> destination terminal adapter, and the source and destination
> terminals may then transfer data between their respective terminals
> via their respective buffers for storing message data. If a source
> terminal adapter requests bandwidth which is not available either
> in the source terminal adapter or the destination terminal adapter,
> that request is stored in a list of requests at the source terminal
> adapter. (Emphasis added)

As seen above, Buhrke discloses a method for allocating bandwidth at terminal adapters.

The cited language from Buhrke, however, does not teach or disclose selecting a route based on

available bandwidth. As understood by one of skill in the art, allocating bandwidth at an adapter

is fundamentally different from selecting a route based on bandwidth. While the cited language

includes the word "bandwidth", it clearly does not disclose route selection of any type. Thus,

claim 38 is allowable for at least the reason that Buhrke does not disclose selecting a route as

recited in claim 38.

Claim 45, which is similar to canceled claim 12, is allowable for at least the reason that

the cited language from Buhrke does not disclose selecting a destination as recited in claim 45.

As can be seen above, the source and destination are discussed as given entities, which makes

sense because Buhrke is directed to allocating bandwidth <u>after</u> source and destination terminal adapters have been selected. Claim 45, in contrast, recites <u>selecting a destination</u> based on bandwidth. Thus, claim 45 is allowable over Buhrke.

Claim 46 recites <u>selecting a destination,</u> and so is allowable over Buhrke for at least the reasons given for the allowability of claims 38 and 45.

If the Examiner continues to reject the subject matter of claims 38, 45, and 46 using Buhrke, then the Applicant respectfully requests that the Examiner clarify how the cited language from Buhrke discloses <u>selecting a route</u> as recited in claim 38 or <u>selecting a destination</u> as recited in claims 45 and 46.

Dependent Claims 39-42

Claims 39-42 have been added by amendment, and generally recite the subject matter of canceled claim 10. Accordingly, the rejection of canceled claim 10 will be discussed. No new matter has been added.

To support a rejection of claim 10, now canceled, the Office Action states:

> Leinwand fails to teach the limitation further including content associated with the geographic location, wherein the content is one of advertising content is one of advertising content associated with the geographic location, promotional content associated with the geographic location, or content in a language associated with the geographic location.

> However, Fung teaches a method and apparatus for automatically providing a called party with audio prompts in a language or dialect that has been selected by the calling party for the calling party or is generally spoken in the called party's geographic location (see abstract). Fung teaches the selection of a language from a plurality of language selections in response to the determined geographic location of the called party (col. 2, line 30 – col. 3, line 43).

The Office Action cites to 80 lines of Fung and asserts that the cited language discloses selecting a language in response to the determined geographic location of a called party. Assuming <u>arguendo</u> that the above-characterization of Fung is true, claim 39 is still allowable over Fung. Claim 39 recites the method of claim 33, wherein determining a destination comprises <u>selecting a destination</u> because it has content associated with a geographic location of

a source of the network traffic. Even assuming arguendo that Fung discloses selecting a language based on a geographic location, selecting a language clearly fails to disclose selecting a destination for network traffic as recited in claim 39. Thus, claim 39 is allowable over Fung.

If the Examiner continues to reject the subject matter of claim 39 using Fung, then the Applicant respectfully requests that the Examiner clarify how selecting a language as posited in the Office Action discloses selecting a destination as recited in claim 39.

To support a rejection of claim 10, the Office Action also states:

> It would have been obvious to one or ordinary skill in the art at the time of the invention to modify Leinwand in view of Fung to choose content based on a language associated with a geographic location. One would be motivated to do so because it will allow for the content to be in that location's native language. (Emphasis added)

The Applicant strongly disagrees because claim 39 has nothing to do with choosing content; rather, claim 39 recites selecting a destination. Thus, even assuming arguendo that the alleged modification to Leinwand could be made, the alleged modification fails to arrive at the invention of claim 39. Thus, claim 39 is allowable for at least the reason that no motivation has been given to combine Leinwand and Fung to arrive at the invention of claim 39. Claims 40-42 are allowable for at least the reasons given for the allowability of claim 39.

Dependent Claims 53-56

Claims 53-56 have been added by amendment, and have support in the Application as filed on pages 13-17. No new matter has been added.

Claim 53 is allowable for at least the reason that the cited references do not teach or disclose the method of claim 33 further comprising assigning a confidence level to one or more geographic locations as recited in claim 53. Claim 56 is allowable for at least the reason that the cited references to not teach or disclose the method of claim 39 further comprising assigning a confidence level to one or more geographic locations as recited in claim 56. Claims 53 and 54 are allowable for at least the reason that each depends from claim 53.

Dependent claims 27-31, 34-37, 43, 47, 48, and 52

Claims 27-31 are allowable for at least the reason that each depends from allowable claim 24. Claims 34-37, 43, 47, 48, and 52 generally recite the subject matter of canceled claims 2-9 and 11-14. No new matter has been added. Claims 34-37, 43, 47, 48, and 52 are allowable for at least the reason that each depends from an allowable claim.

CONCLUSION

In view of the Remarks, each of the presently pending claims in the Application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to pass the Application to issue. No additional fee is believed due. However, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,
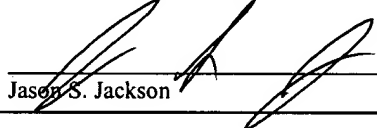
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